

REMARKS

Claims 1, 4-8, 18 and 20 were examined in the Office Action mailed May 11, 2005, while claims 2-3, 9-17, 19 and 21 stand withdrawn pursuant to the Election/Restriction Requirement of March 17, 2005.

The Applicants have carefully considered the pending rejections, and respectfully submit the foregoing amendments and following remarks.

The Specification and Abstract Objections Have Been Addressed: The Applicants have amended the Specification at page 8 and the Abstract in the manner required, and further have amended the Specification at page 9 to eliminate a redundant word (“relatively”) and to more accurately refer to bevel gears. Reconsideration and withdrawal of the pending Specification and Abstract objections is respectfully requested.

The Claim Objection Has Been Addressed: The Applicants have amended claim 3 to correct “fist” to “first,” as required. Reconsideration and withdrawal of the pending claim objection is respectfully requested.

The Section 112, Second Paragraph Rejections Have Been Addressed: The Applicants have amended claims 4-5, 7-8, 18 and 20 to address each of the antecedent basis issues identified by the Examiner. As a general matter, the Applicants have amended the claims to more clearly link each recited gear to its transmission gear train, *e.g.*, “a second gear of said gears of said second transmission gear train.” In addition, rather than referring to the gear of the first transmission gear train to which the transmission is being shifted as “said third gear,” this gear is now recited as “a second gear of said first transmission

gear train.” Reconsideration and withdrawal of the pending § 112, second paragraph. rejections is respectfully requested.

The Double Patenting Concern Is Moot: The Applicants have canceled claim 6, without prejudice to the subject matter therein, rendering the double patenting concern moot.

The Claims Are Patentable Over Loeffler Under § 102(b): The Applicants respectfully traverse the pending rejection of claim 1 as anticipated by WO 00/26559 (corresponding to U.S. Patent No. 6,712,734 B1 to Loeffler) (“Loeffler”), on the grounds that this reference fails to disclose the present invention as recited in claim 1.

The present invention is directed to eliminating the problems of convention torque transmissions which rely on friction clutches. This is accomplished, in part, by the novel idea of eliminating clutches between an electric motor and the transmission input shafts, and controlling the directly-connected electric motor, in conjunction with torque transfer between the first and second gear trains, to accomplish a desired gear shift in a manner which is essentially seamless to an operator. The elimination of the clutches further provides significant improvement in reliability (eliminating the possibility of clutch wear and/or failure), and cost savings.

In contrast to the present invention, the Loeffler reference discloses the conventional art – one or two electric motors *releasably coupleable* (vice “connected to”) to shafts via clutches 29, 30. *See, e.g.*, Loeffler Figs. 1, 2. Loeffler therefore fails to disclose or suggest the present invention’s elimination of such

clutches under § 102(b). Claim 1 is therefore patentable over this reference under § 102(b).

As a separate matter, for clarity and without intend to limit the scope of the claims, the Applicants have amended claims 1, 18 and 20 to recite that the motor is not connected in a releasably connectable manner, *i.e.*, that the motor is “fixedly connected to the first input shaft and the second input shaft by gears, whereby the torque is transferred between said first input shaft and second input shaft.”

The § 102(e) Rejection Is Addressed By Common Inventor Declaration:

The Applicants attach herewith a 37 C.F.R. § 1.132 Declaration in which the inventors Masahiko Ibamoto and Hiroyuki Sakamoto declare that they are the inventors of the subject matter disclosed in United States patent application Ser, No. 10/106,109, published as U.S. Patent Publication No. 2003/0069103 A1 on April 10, 2003, and thus not the invention “by another.” Accordingly, withdrawal of the pending § 102(e) rejection is respectfully requested.

CONCLUSION


In view of the foregoing amendments and remarks, the Applicants respectfully submit that claims 1, 4-5, 7-8, 18 and 20 are in condition for allowance. Early and favorable consideration, and issuance of a Notice of Allowance for these claims is respectfully requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056208.53058US).

October 28, 2005

Respectfully submitted,



James F. McKeown

Registration No. 25,406

Mark H. Neblett

Registration No. 42,028

CROWELL & MORING, LLP
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844
JFM:MHN:vgp